RESIDENTIAL SOUND ASSISTANCE PROGRAM

We Hear You. • Le Escuchamos.

Your Illustrated Guide To The Residential Sound Assistance Program

City of Phoenix

PHOENIX SKY HARBOR INTERNATIONAL AIRPORT

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RESIDENTIAL SOUND ASSISTANCE PROGRAM (RSAP) Illustrated Guide

RSAP home completed after installation.

OVERVIEW

Welcome

Welcome to the Residential Sound Assistance Program. We look forward to working with you. Our team is always here to serve your needs.

The sound insulation process requires the expertise of many professionals. The RSAP Team will work diligently to ensure your satisfaction. During this process you and your family will become familiar with our team of professionals, who will come to your home, assess its needs and implement the plan that will best suit your sound reduction requirements.

As a member of the RSAP Family, you will be assigned a Homeowner Representative who will be available to answer any questions you may have. Your Homeowner Representative can be reached at 602-261-7950.

In addition to your Homeowner Representative, you will meet several other members of the RSAP Team including Architects, Contractors, Environmental Specialists and Acoustical Engineers. An appointment will be scheduled at your convenience anytime a RSAP Team member needs to meet with you. The RSAP Team recognizes how precious your time is. All scheduled meetings will be handled in a prompt and efficient manner.

About This Booklet

The Residential Sound Assistance Program Illustrated Guide will take you through the steps of your home's sound insulation process. This booklet is intended to familiarize you with this process by providing detailed information and using photographs that outline each step of the process. For your convenience, we have also included a list of relevant terms at the end of each section and blank pages so that you may write down any additional questions you may have for our team members.

This booklet utilizes actual photographs taken during the home insulation process. These photos are meant to illustrate the variety of homes that we work with. Please understand that every home will receive the treatments that are suitable based on its unique acoustical requirements.

What the Residential Sound Assistance Program Is

The Residential Sound Assistance Program is a project that was developed to reduce interior noise levels in eligible homes near Phoenix Sky Harbor International Airport.The program reduces noise levels in your home by providing:

- *Replacement exterior windows with acoustically rated noise-reducing windows*
- *Replacement exterior doors with acoustically rated noise-reducing doors*
- *New door hardware and weather stripping at all exterior replacement doors*
- *Insulation of attics (where accessible)*
- *Installation of sound baffles at large attic vents*
- *Installation of sound baffles at other penetrations through the walls or roof of your home where applicable.*

How the Residential Sound Assistance Program is Funded

The Residential Sound Assistance Program is made possible by joint funding provided by the City of Phoenix Aviation Department, through Passenger Facility Charges and the Federal Aviation Administration, through noise reduction grants.

The program has been designed to assist homeowners who are within the established noise contours. RSAP is a project that provides new windows, doors, insulation materials and other appropriate means of sound reduction.

This program was designed to serve eligible homeowners, like yourself, at absolutely no cost to you.

RESIDENTIAL SOUND ASSISTANCE PROGRAM (RSAP) MISSION STATEMENT

"We the Residential Sound Assistance Program Team will enhance local and community relations and trust by implementing the sound assistance program with a professional excellence that assures customer satisfaction."

Residential Sound Assistance Program Team.

Stained French doors with muntins.

Attic insulation – 12" thick.

Wall show duct sound baffle and exhaust.

Work Included in the Program

The following products and services are included in the RSAP at absolutely no cost to you, the Homeowner:

Windows & Doors

- *Existing living area exterior windows and exterior doors will be replaced with new custom fitted acoustical windows and doors.*
- *Operable windows come with insect screens*
- *Doors with small glass windows are also available to replace similar existing doors.*
- *Existing skylights will be acoustically treated with an additional pane of glass.*

Attic Insulation

- *All accessible areas above livable spaces will be insulated.*
- *Insulation will be installed or built-up to an* **R-30** *value, if existing attic space and construction allows (2 feet of clear attic height is required).*

Baffles

- *Sound baffles in large attic vents will be installed.*
- *Sound baffles at other penetrations such as walls, roofs, mail slots, air-conditioning units or kitchen exhausts may be installed.*

Work Not Included In The Program

The following work does not fall within the program services of the Residential Sound Assistance Program:

- *Replacement of doors and windows in non-eligible areas, such as garages, porches, patios and utility rooms.*
- *Extensive structural re-framing or other structural upgrades*
- *Roofing*
- *Replacement of interior doors*
- *Replacement of major electrical, plumbing or foundation systems*

If you are unsure as to what is included in your home's insulation plan, please ask your RSAP Homeowner Representative.

Relevant Terms

Baffle - *A wood or metal box with insulation materials that carries sound upward vs. outward .*

R-30 Value - *Approximately 12 inches of insulation*

Notes

RESIDENTIAL SOUND ASSISTANCE PROGRAM
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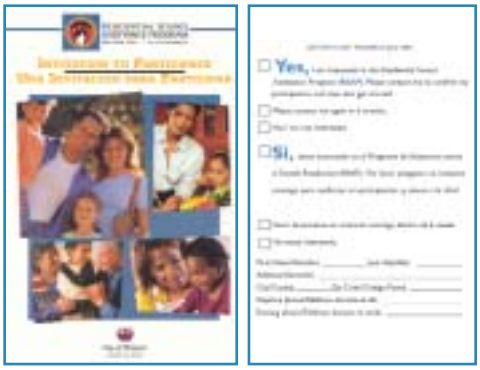
A STEP-BY-STEP GUIDE TO THE RESIDENTIAL SOUND ASSISTANCE PROGRAM



Step 1: Invitation and Outreach – The Residential Sound Assistance Program (RSAP) is making an effort to identify all eligible homeowners for this program. Through community outreach efforts such as direct mailings, personal visits, invitations to community events, brochures, newsletters and other informational materials, we have enrolled hundreds of homeowners. To enroll in RSAP you may call the Program office directly or return a response card. An RSAP Homeowner Representative will work with you to determine your eligibility. A RSAP Homeowner Representative can be reached at 602-261-7950.

Step 2: Eligibility – If your home is a single-family detached dwelling and is located within the eligible noise contour areas (map shown on left), an appointment will be made at your convenience for an RSAP Architect to come to your home to assess its qualification and readiness for the sound insulation products.

Step 3: Architect's Field Survey for Acceptance – The RSAP Architect will take a detailed look at your home, take field measurements and photographs of your current windows and doors. Provided your home meets the design standards, you will receive notification of your acceptance into the Program.

Step 4: Homeowner Signature Requirements – Before we can enroll you in the Program, your signature will be required on two important documents:

- ***Limited Grant of Easement –*** *This document states that in exchange for insulation improvements, the homeowner grants the City a limited easement.*
- ***Homeowner's Participation Agreement –*** *This document states that you understand the Program, agree to be a participant and allow construction to take place in your home.*

Step 5: Environmental Testing - An Environmental Engineer will test various locations in your home to determine the presence of any hazardous material such as lead or asbestos. This is a required step in the design process that ensures your safety during construction as well as a safe working environment for our contractors.

Step 6: Acoustical Testing – An Acoustical Engineer, who specializes in the science of sound, will test approximately 10% of all participating homes. This test will be done prior to and immediately following construction. These tests are our way of ensuring the RSAP goal of reducing overall sound in your home by a measure of 5 decibels.

Step 7: Bid Phase – The City of Phoenix will seek bids from qualified contractors to provide sound insulation materials for your home. Qualified contractors are selected based on the lowest and most responsible bidder. The bid phase involves several steps that can take anywhere from 3 to 6 months.

Step 8: Contractor Measurement and Ordering of Materials – Once a contractor has been selected, they will visit your home and verify all measurements that were taken during the architect's field survey. These measurements ensure all materials are ordered to fit your home's specific needs. Once all measurements have been verified, the materials will be ordered, fabricated and delivered.

Step 9: Construction – A construction time will be scheduled according to the homeowner's availability. In approximately ten working days, your home will be outfitted with custom acoustical windows and doors as well as additional sound insulation materials suited for your home's unique needs.

Step 10: Final Inspection – To ensure a high quality of construction methods and materials, upon completion of construction, all work will be reviewed by a team of inspectors.

Step 11: Warranty Period – All work performed on your home will be covered by a warranty for one (1) year from the date of Substantial Completion. Additionally, some of the materials used in your home may carry an extended warranty from the manufacturer. You will receive a manual, which contains all of the information you will need in the future, should a problem arise.

THE ARCHITECT'S FIELD SURVEY

RSAP Team member measuring windows.

The Architect's Field Survey may take several hours. The purpose of this visit is to determine if your home qualifies for the program and assess its readiness for the installation of sound insulation materials. The Architect will evaluate all existing conditions of your home and will explain to you the sound insulation options, code regulations and manufacturer's limitations that apply to your home. During this visit you will have an opportunity to discuss any questions or concerns you may have.

What the Architect is Looking For

The Architect will be taking notes on the structure of your home and recording information such as the number of existing doors and windows. The Architect will also note the areas where additional windows may be needed for safety reasons or areas where windows will have to be enlarged. In addition, the Architect will be looking for any special conditions that may need to be addressed by you, the homeowner, prior to enrollment in the Program.

Pictures will be taken of the interior and exterior of your home. These photos will later assist the Architect in preparing the plans for your home. Additionally, they will serve to document the condition of your home before our team begins work.

Plane from Sky Harbor International Airport flying above Tempe neighborhood.

Necessary Documents For Participation in the RSAP

The Limited Grant of Easement - This document states that in exchange for insulation improvements, the homeowner grants the City a limited easement.

The Homeowners Participation Agreement – This document states that you fully understand the program, agree to participate and agree to allow construction to take place in your home.

DESIGNING YOUR SOUND INSULATION PROJECT

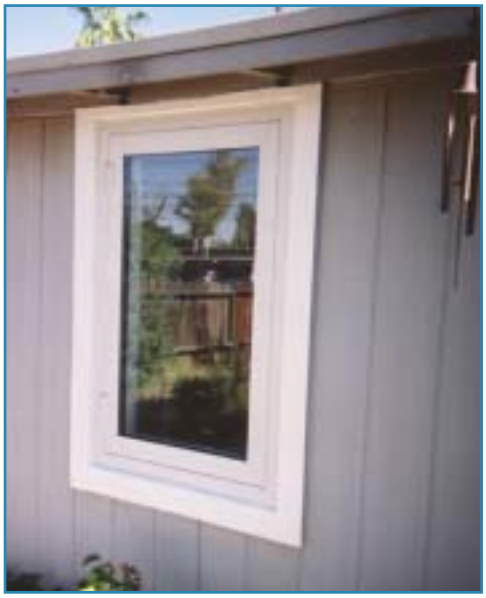
Once your qualification for sound insulation has been established, and the Architect Field Survey has been completed, the Architect will design the sound insulation for your home.

Windows

The Residential Sound Assistance Program provides high quality windows that not only assist in reducing sound within your home, but also have a high-energy efficiency rating.

Every home will have unique needs, and therefore, there are many different shapes and sizes of windows available for every home's needs.

The following pictures and descriptions are meant to help explain the various window options provided by the Program.



Casement window type.

Fixed Window

A fixed window is a non-operable window consisting of a stationary section of glass.

Horizontal Sliding Window

A horizontal sliding window is an operable window consisting of two separate sections. In a slider-fixed window, one section opens by sliding horizontally along a track. In a slider-slider window, both sections slide past one another horizontally along two tracks. In a slider-fixed-slider window, the window is divided into three separate sections. The center portion is stationary and the "vents", located on each side, slide horizontally along a track towards the center of the window.

Vertical Sliding Window

A vertical sliding window is an operable window consisting of two separate sections. In a single-hung window, the bottom section opens by sliding vertically along a track. In a double-hung window, both sections slide past one another vertically along two tracks.

Horizontal sliding window with muntins.

Window with Grids (also called "muntins")

Grids are thin bars applied between the panes of a dual pane window or on the surface of a single pane window to imitate the look of a divided window. Muntin or grid patterns are available in various dimensions, depending upon the size of the window. You may select grids in rectangular or square patterns if your present windows are of this type.

Double hung window type with muntins.

Secondary interior glazing and existing skylight.

Secondary interior window with existing greenhouse window.

Enlarging of window for masonry house.

Fixed Replacement Glazing in Wood Stops

This is a thick piece of laminated glass held into the window opening with wood stops. It does not have an aluminum or vinyl frame. This is used at locations where there is a non-standard wall thickness or other situations where an acoustical fixed window cannot be installed.

Additional Notes About Windows

- *All acoustical window frames range in thickness from 4-1/2 to 5 inches. This will take up most of the existing window sill space. There is a possibility that drapes, blinds, shutters or other window coverings installed within window openings, may not be reinstalled as before. The Residential Sound Assistance Program will replace and/or modify all existing window coverings.*
- *Fixed windows over 25 square feet will need to be divided into sections. (See the sections titled "Enlarged Openings" and "Reconfiguration").*
- *The majority of the acoustical windows installed are "retrofit" windows.* ***'Retrofit'*** *or 'insert' style windows are installed over the existing window frame.*

IMPORTANT NOTE: The RSAP makes every effort to replace the windows in your property with acoustical products that are similar in appearance to the items you presently have. However, because of manufacturer limitations, acoustical guidelines of the Program, established Program Policies and/or compliance with building codes, we cannot always replace "like for like," but it is our intention to do so whenever possible. Also, the new window glass area may be less than the existing glass area due to the enlarged size of the window frames.

Possible Window Modifications

Emergency Egress

Local building codes require that every bedroom in a home have either a door that opens directly to the exterior of the house or an emergency egress. An emergency egress is defined as a clear window opening required to provide exit from a bedroom in the event of an emergency. The minimum dimensions for an emergency egress are twenty (20) inches in width and twenty-four (24) inches in height. The bottom of the window opening must be no more than forty-four (44) inches from the floor.

Residences within the RSAP Project Area may have met similar safety requirements at the time the dwelling was constructed. However, some bedroom windows may no longer meet the current egress requirements of local building codes.

An acoustical window is typically installed over an existing window frame, which may reduce the size of your window opening. In some bedrooms, this reduction in size will interfere with required emergency egress. To compensate for the thickness of the actual window frames, we may need to enlarge your window opening slightly or change the way the window opens (reconfiguration). Below, are some examples of these required changes.

RSAP Environmental Consultant enlarges opening for Egress Window installation.

Enlarged Openings

For building code compliance purposes, the RSAP Team will enlarge window openings that are not conducive to a window egress in the event of emergency. Many older homes feature windows that are too small to serve as an exit for a child or older adult. In recent years, building code regulations have required the enlargement of such openings.

Reconfiguration

Due to the larger size of the acoustical window frames and new safety codes, there may be a need to change how a window opens to accommodate this larger size.

Security bar.

Window Security Bars

Pre-existing security bars will be removed during construction and reinstalled upon completion. If windows have been enlarged, new security bars will be installed only where pre-existing bars will not fit the new windows.

These changes, if required, will be at bedroom locations only. In addition, there may be cases where a window will be added in a room to increase the light and ventilation. Your RSAP Architect will discuss the above modifications with you at the time of the survey. Window openings too close to property lines may need to be moved or eliminated to comply with current codes.

Window Frame – Color Selections:

White
Dark Bronze
Silver

Painted Solid Door with glass lite and lower 2 panels.

Stained doors with 8-panel molding.

Sliding glass door.

Doors

The Residential Sound Assistance Program may provide acoustic sliding glass doors for existing glass doors as well as smooth and decorative wooden doors. Each home's aesthetic and functional needs will be unique.

The following pictures and descriptions are meant to help explain the various door options provided by this Program.

Storm Door (Full-Light)

Heavy-duty aluminum frame door with one fixed glass panel. Storm doors are installed at locations where the existing door will remain.

Smooth-Surface or Decorative Solid Wood Door

Solid-core wood doors. This type of door will be installed at exterior locations.

Solid-Core with Window

Smooth-surfaced solid-core wood door with glazing (window), which may be fan-shaped or rectangular. The fan-shaped glazing is available with or without grids. Solid core wood doors with a window will replace an existing front door with a window.

Sliding Glass Door (2-Part)

Operable glass door consisting of two separate sections; one that is stationary and one that slides horizontally along a track. New sliding glass doors replace existing sliding glass doors.

Door – Color Selection (sliding glass doors only)

White
Dark Bronze
Silver

Door Hardware

Weather Stripping

1-inch wide aluminum strip is fastened to the doorframe to reduce noise infiltration around doorway edges.

Door Shoe

Rubber strip attached to bottom of the door to provide a seal against the door's new threshold.

Door rain drip and threshold.

Dead bolt and lockset with lever type handle.

4x4 butt hinge pin type.

Insulation being installed in attic.

Threshold

4-inch aluminum strip installed on the floor to provide a surface for the door shoe to seal against.

Lockset

Locking rotating handle, when turned, releases the door latch and allows the door to open and close (available with lever or knob – like will be replaced with like).

Deadbolt (single cylinder)

Additional keyed lock at exterior swinging door locations. A key is required to unlock the deadbolt from the exterior only. "Double cylinder" or a lock requiring a key from the inside as well as the outside to open is prohibited by building and safety code.

Hinges

Rotating joint between metal plates that are fastened to the door and the doorframe, allowing the door to swing.

Door Viewer (Peephole)

Allows for a wide-angle view of the exterior when the door is closed.

Door Hardware Finish

All necessary door hardware will be replaced with hardware that is most similar to existing hardware. All materials will be a standard polished brass or antique finish.

Possible Modifications

Security Doors

Pre-existing security doors will be removed during construction and reinstalled upon completion. If necessary, new security doors will be installed.

Additional Insulation Treatments

Due to the wide range of home styles that are participating in the RSAP and the criteria based on requirements, there are numerous ways that we will provide additional insulation.

Attic Insulation

For homes with attic space, all accessible areas above livable spaces will also be insulated. Insulation will be installed or built-up to the equivalent of an **R-30 value** if existing attic space allows (two feet of clear attic height is recommended). In locations with limited attic space, generally homes with flat or low-sloped roofs, insulation will be installed or built-up to an **R-19 value**.

Insulation being cut for installation around doorways.

Types of Insulation Materials

Two types of insulation, batt or blown-in, can be used for insulation purposes. However, you need to have at least two feet of clear attic height in order for batt insulation to be installed. Batt insulation will be installed around attic openings and on the back of the access panel. Batt insulation is cut into strips and is commonly used around windows to fill void spaces.

Baffles

Sound baffles at large attic vents will be installed. Sound baffles at other penetrations through the walls or roof of your home (i.e. mail slots, air conditioning units or kitchen exhausts) may also be installed.

Relevant Terms

Baffle - *A wood or metal box with insulation materials that carries sound upward vs. outward and serves as a sound trap.*

Batt Insulation - *A blanket (sheet) of thermal insulation.*

Blown-In Insulation - *Loose particles of insulation that are blown into an area (i.e. attic).*

Like for Like - *Windows and doors will be replaced with the same style of window or door existing prior to sound insulation. (i.e. a fixed window will be replaced with a fixed window, not a sliding window).*

R-19 - *Approximately six inches of insulation*

R-30 - *Approximately twelve inches of insulation*

Retrofit - *Window installed over the existing window*

THE WORK OF THE ENVIRONMENTAL CONSULTANTS

Environmental Consultant Visit

An RSAP Environmental Consultant will inspect your home for the presence of hazardous materials such as lead and asbestos. The Environmental Consultant will take samples of wall, window, door and ceiling areas where work will be performed. Rest assured, the RSAP Team will repair all areas affected by environmental testing.

Environmental Consultant looks for hazardous materials around window openings.

Due to the nature of the program, there exists a need to ensure that workers and homeowners are not exposed to any hazardous materials in the performance of the work. The two most prevalent hazardous materials found in homes, constructed prior to 1978, are lead and asbestos. Although this is not necessarily a danger to you or your family, there may be a potential risk for contractors performing the work. The Environmental Consultant will test your windows and door-frames as well as other areas, which will be renovated, to determine if these materials occur in your home. Prior to testing, you will receive the USA Environmental Protection Agency's (EPA) pamphlet, 'Protect Your Family from Lead in Your Home'.

Lead

Many houses and apartments, built before 1978, have paint that contains lead (called lead-based paint). Lead from paint chips and dust can pose serious health hazards, if not handled properly. A 1996 federal law requires that individuals receive information concerning the existence of lead paint before renovating a home built before 1978.

RSAP Team member tests for lead in existing tiles.

Lead Testing

Our environmental consultant will perform tests, which will include removal of small paint samples from interior and exterior areas of your home. These samples will be tested to determine how much lead is present. The sample areas will be repaired during the construction process. The test samples are sent to a lab and rated based on how significant the levels of lead are.

How the Lead is Removed

The lead containing paint on windows and door is removed as components to minimize the disturbance of the lead, allowing for the placement of the new windows and doors. This work is done in an enclosure that controls the lead in that area. The area is vacuumed with a High Efficiency Particulate Air (HEPA) vacuum, then wet wiped until the area is "clearance" sampled to confirm that the area is clean and below acceptable levels.

Environmental Consultant prepares for testing by putting on a protective mask.

Asbestos

Asbestos is a naturally occurring fibrous mineral (rock) that is mined. Because of its strength and insulating properties that withstand heat, it can be found in over 3,500 building and construction products (including surfacing materials like wall and ceiling textures). The dangers of asbestos were identified in the late 1950's. In 1978 the federal government put restrictions on the use of and the removal of asbestos. Asbestos is only a health risk when the fibers become airborne and inhaled, but should not pose a health risk if it remains intact and undisturbed. Construction workers who have had repeated exposure to airborne asbestos appear to be at the greatest risk of developing cancer or asbestosis. When removed, asbestos must be taken to an approved regulated landfill.

Relevant Terms

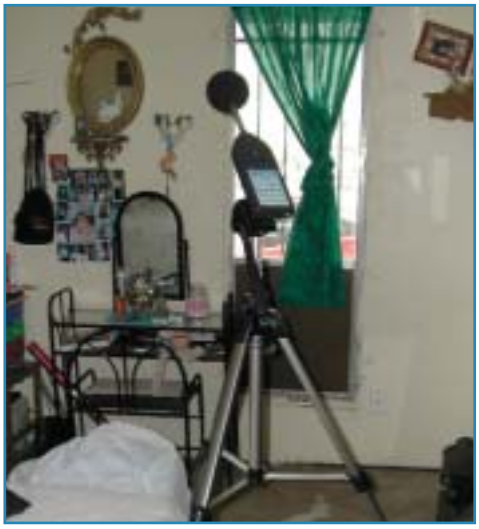
Asbestos - *A naturally occurring fibrous mineral (rock) that is mined.*

Disturbed - *Scraped, chewed, taken out of, or changing its intended condition*

Lead - *A heavy, soft, malleable, blueish-gray, metallic chemical element used for piping and numerous alloys and compounds.*

THE WORK OF THE ACOUSTICAL ENGINEER

Ten percent of all homes that participate in the Residential Sound Assistance Program are randomly selected to be tested by an Acoustical Engineer. These tests assist the RSAP in monitoring our success rate in lowering sound by an average of 5 **decibels**.



Microphone for acoustical testing set up near windows to capture airplane noise.

The Difference between Sound Proofing and Sound Insulating

Soundproofing is a process that permits little or no sound to pass through a barrier, such as a wall. Additionally, soundproof rooms have no windows. Therefore, soundproofing would not be possible for a residence.

Sound insulation is a process that refers to the act of insulating an interior space from the impact of loud sounds. Sound insulation provides materials that reduce sound only. It does not eliminate sound. The Residential Sound Assistance Program's goal is to establish a 5-decibel reduction in interior sound.

How Sound Testing is Done

During the acoustical testing, noise-monitoring equipment will be set up in various rooms of the home to record interior noise levels. If you are selected for acoustical testing, your home will be tested prior to sound insulation and immediately after the construction process is completed. The testing usually takes about two (2) hours.

The pre-sound insulation test and post-test are always performed at the exact same time of day. This ensures a more accurate assessment of the program's success in reaching its projected goals.

Relevant Terms

Decibel - *A unit for expressing the relative intensity of sounds.*
Acoustical – *Sound absorbing or sound reflective*

BIDDING

The City of Phoenix will seek bids from qualified contractors to provide sound insulation materials for your home. Qualified contractors are selected based on the lowest and most responsible bidder.


CONTRACT

City of Phoenix, Arizona

Engineering & Architectural Services Department

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

VOLUME I OF 2

RESIDENTIAL SOUND MITIGATION PROGRAM
PHASE 3.20

MAYOR
SKIP RIMSZA

CITY COUNCIL

A sample of a contract granted to the qualifying contractor.

Bid Steps

- *The Architect will submit the construction documents to the City for review and approval.*
- *Upon approval, the City will issue the bid documents based on the Architect's construction documents.*
- *The bid documents will be available to all interested bidders for a period of 28 days.*
- *At the end of the bid period, the City will receive and review all bids.*
- *The City will determine the lowest and most responsible bidder and make their recommendation for award by City Council.*
- *The City Council will approve and award the contract for construction.*
- *Following Council award, the Contractor will submit required documentation to meet bonding and insurance requirements.*
- *Once the City receives the signed contract from the Contractors, the City will issue the "Notice to Proceed" to the Contractor.*

- *Upon receipt of the Notice to Proceed, the Contractor may start the construction process.*
- *These steps in the bidding process may take 2 to 3 months to complete.*

Relevant Terms

Bid - *The price offered by the Contractor to the City to perform the work required by the contract.*

Notice to Proceed - *Official authorization by the City for the contractor to commence work required by the contract.*

Once a Contractor has been selected, they will schedule an appointment at your convenience, to visit your home and verify all measurements that were taken during the architect's field survey. These measurements ensure all materials are ordered to fit your home's specific needs. Once all measurements have been verified, the materials will be ordered.

The manufacturer will custom-build the windows and doors for your home. The manufacturing process normally takes approximately 3 months.

CONSTRUCTION

Your cooperation with the Residential Sound Assistance Program Team ensures that the construction work we do on your home maintains the high RSAP standards that have been set program-wide.

Your construction appointment will be scheduled and we ask you to prepare your home for the insulation process. The RSAP Construction Team will always ensure that all of your belongings are treated with care.

RSAP Team member works at homesite.

RSAP Team members installing window with "muntins".

RSAP Team member measures window frame before installing new window.

RSAP Team member installs window.

Preparing Your Home for the Insulation Process (Homeowner Responsibilities)

- *Be sure you or an adult you trust will be at your home for each scheduled appointment. The contractor will not work in any home without the presence of an adult.*
- *Remove all furniture and personal or fragile belongings away from all windows and doors for the installation of materials.*
- *Remove all curtains and window coverings from the windows.*
- *Make sure your pets have a safe, comfortable area with food and water, where they can remain while the RSAP Team is in your home.*
- *After construction has been completed, please follow the instructions you will be given regarding the operation and maintenance of your new windows, doors and other equipment.*

The Inspection Process (Phoenix Residents Only)

Prior to the work commencing, the City will review and approve the Architect's construction documents and issue appropriate building permits.

Once your home insulation program is complete, an Inspector from the City of Phoenix will come to inspect the work done by the Residential Sound Assistance Program. The City Inspector will be looking for compliance with building code requirements. They will verify that all required life and safety items are in place.

The Residential Sound Assistance Program also has its own Inspectors. Our Inspectors come to your home, each day, while work is in progress. They will observe the work of the construction crew and ensure that schedule and quality standards are met. On or around the eighth day of installation, the RSAP Construction Inspector will work with the crew to create a **Punch List** of items still to be completed within the final 2-3 days of work.

The 10 Day Installation Timeline

The project timeline for construction in your home is approximately 10 working days.

Day 1-2 Doors/Windows Removal and Re-installation

Day 3-4 Paint Patching, Stucco Repair, Electrical Work, Plumbing, and **Masonry Work**

Day 5-7 Attic Insulation

Day 8 Punch List Developed Identifying Final Items to be Completed

Day 9 Completion of Punch List Items

Day 10 Final City Inspection

(2-3 weeks later) Warranty Materials Delivered, Post-Construction Acoustical Testing

RSAP Team covers furniture.

RSAP Team covers windows.

RSAP Team replaces security bars.

Preparing Your Home For the Insulation Process (Contractor's Responsibilities)

Protecting Furniture

The RSAP Team will cover all of your furniture with a protective covering. This will be done wherever work is being performed. We recommend that you remove fragile and/or valuable items from construction areas until the insulation process has been completed.

Covering Window and Door Areas

Before a window or door is removed, the Contractor will tape and cover the area to protect the interior of the home from dust and debris.

Disconnecting/Reconnecting Alarm System

Existing functioning alarm systems, that are "hard wired" to your windows, will be disconnected during construction and reconnected after construction is completed. It is the responsibility of the Homeowner to advise the alarm company, in advance, that this will be done.

Removing/Reinstalling Security Bars

Pre-existing security bars on windows will be removed for construction. Upon completion, the pre-existing grilles will be reinstalled. If windows (with pre-existing grilles) are enlarged, code-complying grilles will be installed.

Relevant Terms

Hard-wired - *Wired into the frame of the window*

Masonry Work - *Work that involves brickwork installation*

Punch List - *A list of work items necessary for completion of a construction project*

RSAP Representative performs final inspection.

The RSAP Warranty Manual.

FINAL INSPECTION AND WARRANTY

Upon completion of construction, a final inspection of the improvements that have been made to your home will be conducted. The inspection will verify that the work has been performed at a satisfactory level. In addition, your RSAP Homeowner Representative will provide you with all warranty documentation.

RSAP Warranty Period

All work performed by the RSAP Contractors is covered for a period of one year from the construction completion date, as noted in the warranty documentation. Should any problems or concerns arise, please contact your Homeowner Representative at (602) 261-7950.

Additional Warranties

Additional warranties may be provided by the manufacturer of the materials that have been used to sound insulate your home. Please refer to the manufacturer's information provided in the warranty documentation for any additional warranties.

If you have any additional questions, please feel free to contact your RSAP Homeowner Representative. We are eager to serve you.

Relevant Terms

Warranty - *Guarantee against defects in materials or workmanship.*

Notes

RESIDENTIAL SOUND ASSISTANCE PROGRAM
We Hear You. • Le Escuchamos.

CONCLUSION

RSAP home after installation.

Dear Homeowner,

Thank you for your interest in the Residential Sound Assistance Program (RSAP). We hope that the Illustrated Guidelines has provided you with important and useful information on the Program. The Illustrated Guidelines will help guide you through every step of the Program and should answer any questions you may have. In the event you need further information or have additional questions, please do not hesitate to call your Homeowner Representative at 602-261-7950.

We look forward to working with you in providing sound insulating services!

The RSAP Team

We Hear You!

RSAP'S GENERAL PROGRAM GLOSSARY

Acoustical - *Sound absorbing or sound reflective*

Asbestos - *See "The Work of The Environmental Consultants" section of this guide*

Baffle - *A wood or metal box with insulation materials that carries sound upward vs. outward.*

Batt Insulation - *A blanket (sheet) of thermal insulation.*

Bid - *The price offered by the Contractor to the City to perform the work required by the contract.*

Blown-In Insulation - *Loose particles of insulation that are blown into an area (i.e. attic).*

Decibels - *A unit for expressing the relative intensity of sounds.*

Disturbed - *Scraped, chewed, taken out of or changing its intended condition*

Eligible - *Qualify to participate in the program (location of home, condition of home, etc.).*

Hard-wired - *Wired into the frame of the window.*

Lead - *See "The Work of The Environmental Consultants" section of this guide.*

Like for Like - *Windows and doors will be replaced with the same style of window or door existing prior to sound insulation. (i.e. a fixed window will be replaced with a fixed window, not a sliding window).*

Masonry Work - *Work that involves brickwork installation.*

Notice to Proceed - *Official authorization by the City for the contractor to commence work required by the contract.*

Punch List - *A list of work items necessary for completion of a construction project.*

R-19 - *Approximately six inches of insulation.*

R-30 - *Approximately 12 inches of insulation.*

Retrofit - *Window installed over the of existing window frame.*

Warranty - *Guarantee against defects in materials or workmanship.*

Danny Teston, RSAP Representative.

RESIDENTIAL SOUND ASSISTANCE PROGRAM

We Hear You. • Le Escuchamos.

FREQUENTLY ASKED QUESTIONS

1. What happens if materials are ordered for my house and I decide not to participate?

The Program requires that the property owner sign a Homeowner Participation Agreement. That agreement contains stipulations concerning agreements to remain in the program after windows and doors are ordered. A homeowner must be very certain they want to participate.

2. How long will it take to get my doors and windows installed?

After a contractor is selected to perform construction on a home, doors and windows will be ordered. It usually takes from 4 to 6 weeks to have your custom-made components built and delivered. From that point onward, the contractor will schedule your work, based on an agreed upon time frame.

3. Will I owe the City of Phoenix money if I sell my house?

If, in the future you decide to sell your home, the improvements must remain with the structure. You will owe no money to the City of Phoenix upon the sale of your property.

4. Do I need to be present while my home is under construction?

We ask that a responsible adult be present during the construction process. On the average, construction takes about ten working days.